

The demand must be filed directly with the competent International Preliminary Examining Authority or, if two or more Authorities are competent, with the one chosen by the applicant. The full name or two-letter code of that Authority may be indicated by the applicant on the line below:

IPEA/ US

**PCT**

**CHAPTER II**

**DEMAND**

under Article 31 of the Patent Cooperation Treaty:  
The undersigned requests that the international application specified below be the subject of international preliminary examination according to the Patent Cooperation Treaty.

For International Preliminary Examining Authority use only		
Identification of IPEA		Date of receipt of DEMAND
<b>Box No. I IDENTIFICATION OF THE INTERNATIONAL APPLICATION</b>		Applicant's or agent's file reference 14506-44090
International application No. PCT/US03/26801	International filing date (day/month/year) 27 August 2003	(Earliest) Priority date (day/month/year) 27 August 2002
Title of invention CAPILLARY PERFUSED BIOREACTORS WITH MULTIPLE CHAMBERS		
<b>Box No. II APPLICANT(S)</b>		
Name and address: (Family name followed by given name; for a legal entity, full official designation. The address must include postal code and name of country.) VANDERBILT UNIVERSITY 1207 17th Avenue South, Suite 205 Nashville, Tennessee 37212 United States of America		Telephone No.
		Facsimile No.
		Teleprinter No.
		Applicant's registration No. with the Office
State (that is, country) of nationality: US		State (that is, country) of residence: US
Name and address: (Family name followed by given name; for a legal entity, full official designation. The address must include postal code and name of country.) Wiksw, John P. 1025 Manley Lane Brentwood, Tennessee 37027 United States of America		
State (that is, country) of nationality: US		State (that is, country) of residence: US
Name and address: (Family name followed by given name; for a legal entity, full official designation. The address must include postal code and name of country.) BAUDENBACHER, Franz J. 182 North Berwick Lane Franklin, Tennessee 37069 United States of America		
State (that is, country) of nationality: US		State (that is, country) of residence: US
<input checked="" type="checkbox"/> Further applicants are indicated on a continuation sheet.		

## Continuation of Box No. II APPLICANT(S)

*If none of the following sub-boxes is used, this sheet should not be included in the demand.*

Name and address: (Family name followed by given name; for a legal entity, full official designation. The address must include postal code and name of country.)

PROKOP, Ales  
1032 Elmshade Lane  
Nashville, Tennessee 37211  
United States of America

State (that is, country) of nationality:  
USState (that is, country) of residence:  
US

Name and address: (Family name followed by given name; for a legal entity, full official designation. The address must include postal code and name of country.)

LeBOEUF, Eugene J.  
105 Bluebell Way  
Franklin, Tennessee 37064  
United States of America

State (that is, country) of nationality:  
USState (that is, country) of residence:  
US

Name and address: (Family name followed by given name; for a legal entity, full official designation. The address must include postal code and name of country.)

CHUNG, Chang Y.  
845 Abington Way  
Franklin, Tennessee 37069  
United States of America

State (that is, country) of nationality:  
Republic of KoreaState (that is, country) of residence:  
US

Name and address: (Family name followed by given name; for a legal entity, full official designation. The address must include postal code and name of country.)

CLIFFEL, David E.  
7729 Daniel Trace  
Nashville, Tennessee 37221  
United States of America

State (that is, country) of nationality:  
USState (that is, country) of residence:  
US☒ Further applicants are indicated on another continuation sheet.

Continuation of Box No. II APPLICANT(S)	
<i>If none of the following sub-boxes is used, this sheet should not be included in the demand.</i>	
Name and address: <i>(Family name followed by given name; for a legal entity, full official designation. The address must include postal code and name of country.)</i> HASELTON, Frederick R. 3100 Overlook Drive Nashville, Tennessee 37212 United States of America	
State <i>(that is, country)</i> of nationality: US	State <i>(that is, country)</i> of residence: US
Name and address: <i>(Family name followed by given name; for a legal entity, full official designation. The address must include postal code and name of country.)</i> HOFMEISTER, William H. 3023 New Natchez Trace Nashville, Tennessee 37215 United States of America	
State <i>(that is, country)</i> of nationality: US	State <i>(that is, country)</i> of residence: US
Name and address: <i>(Family name followed by given name; for a legal entity, full official designation. The address must include postal code and name of country.)</i> LIN, Charles P. 9017 Demery Court Brentwood, Tennessee 37027 United States of America	
State <i>(that is, country)</i> of nationality: US	State <i>(that is, country)</i> of residence: US
Name and address: <i>(Family name followed by given name; for a legal entity, full official designation. The address must include postal code and name of country.)</i> MCCAWLEY, Lisa J. 7439 Highway 70 S, Apt 181 Nashville, Tennessee 37221 United States of America	
State <i>(that is, country)</i> of nationality: US	State <i>(that is, country)</i> of residence: US
<input checked="" type="checkbox"/> Further applicants are indicated on another continuation sheet.	

## Continuation of Box No. II APPLICANT(S)

If none of the following sub-boxes is used, this sheet should not be included in the demand.

Name and address: (Family name followed by given name; for a legal entity, full official designation. The address must include postal code and name of country.)

REISERER, Randall S.  
3252 Cain Harbor Drive  
Nashville, Tennessee 37214  
United States of America

State (that is, country) of nationality:  
US

State (that is, country) of residence:  
US

Name and address: (Family name followed by given name; for a legal entity, full official designation. The address must include postal code and name of country.)

STREMLER, Mark A.  
2005 Cedarmont Drive  
Franklin, Tennessee 37067  
United States of America

State (that is, country) of nationality:  
US

State (that is, country) of residence:  
US

Name and address: (Family name followed by given name; for a legal entity, full official designation. The address must include postal code and name of country.)

State (that is, country) of nationality:

State (that is, country) of residence:

Name and address: (Family name followed by given name; for a legal entity, full official designation. The address must include postal code and name of country.)

State (that is, country) of nationality:

State (that is, country) of residence:

☐ Further applicants are indicated on another continuation sheet.

**Box No. III AGENT OR COMMON REPRESENTATIVE; OR ADDRESS FOR CORRESPONDENCE**

The following person is ☒ agent ☐ common representative

and ☒ has been appointed earlier and represents the applicant(s) also for international preliminary examination.

☐ is hereby appointed and any earlier appointment of (an) agent(s)/common representative is hereby revoked.

☐ is hereby appointed, specifically for the procedure before the International Preliminary Examining Authority, in addition to the agent(s)/common representative appointed earlier.

Name and address: *(Family name followed by given name; for a legal entity, full official designation. The address must include postal code and name of country.)*

Tim Tingkang Xia, Esq.  
Morris, Manning & Martin, LLP  
1600 Atlanta Financial Center  
3343 Peachtree Road, N.E.  
Atlanta, Georgia 30326

Telephone No.

404-233-7000

Facsimile No.

404-365-9532

Teleprinter No.

Agent's registration No. with the Office

☐ Address for correspondence: Mark this check-box where no agent or common representative is/has been appointed and the space above is used instead to indicate a special address to which correspondence should be sent.

**Box No. IV BASIS FOR INTERNATIONAL PRELIMINARY EXAMINATION**

**Statement concerning amendments:\***

1. The applicant wishes the international preliminary examination to start on the basis of:

☒ the international application as originally filed

the description ☒ as originally filed

☐ as amended under Article 34

the claims ☒ as originally filed

☐ as amended under Article 19 (together with any accompanying statement)

☐ as amended under Article 34

the drawings ☒ as originally filed

☐ as amended under Article 34

2. ☐ The applicant wishes any amendment to the claims under Article 19 to be considered as reversed.

3. ☐ The applicant wishes the start of the international preliminary examination to be postponed until the expiration of the applicable time limit under Rule 69.1(d).

4. ☐ The applicant expressly wishes the international preliminary examination to start earlier than at the expiration of the applicable time limit under Rule 54bis.1(a).

\* Where no check-box is marked, international preliminary examination will start on the basis of the international application as originally filed or, where a copy of amendments to the claims under Article 19 and/or amendments of the international application under Article 34 are received by the International Preliminary Examining Authority before it has begun to draw up a written opinion or the international preliminary examination report, as so amended.

Language for the purposes of international preliminary examination: English

☒ which is the language in which the international application was filed.

☐ which is the language of a translation furnished for the purposes of international search.

☐ which is the language of publication of the international application.

☐ which is the language of the translation (to be) furnished for the purposes of international preliminary examination.

**Box No. V ELECTION OF STATES**

The filing of this demand constitutes the election of all Contracting States which are designated and are bound by Chapter II of the PCT.

## Box No. VI CHECK LIST

The demand is accompanied by the following elements, in the language referred to in Box No. IV, for the purposes of international preliminary examination:			For International Preliminary Examining Authority use only	
			received	not received
1. translation of international application	:	0 sheets	<input type="checkbox"/>	<input type="checkbox"/>
2. amendments under Article 34	:	0 sheets	<input type="checkbox"/>	<input type="checkbox"/>
3. copy (or, where required, translation) of amendments under Article 19	:	0 sheets	<input type="checkbox"/>	<input type="checkbox"/>
4. copy (or, where required, translation) of statement under Article 19	:	0 sheets	<input type="checkbox"/>	<input type="checkbox"/>
5. letter	:	0 sheets	<input type="checkbox"/>	<input type="checkbox"/>
6. other (specify)	:	0 sheets	<input type="checkbox"/>	<input type="checkbox"/>

The demand is also accompanied by the item(s) marked below:

- |  |  |
|--|--|
| 1. <input checked="" type="checkbox"/> fee calculation sheet                             | 5. <input type="checkbox"/> statement explaining lack of signature   |
| 2. <input type="checkbox"/> original separate power of attorney                          | 6. <input type="checkbox"/> sequence listing in computer readable form   |
| 3. <input type="checkbox"/> original general power of attorney                           | 7. <input type="checkbox"/> tables in computer readable form related to a sequence listing                           |
| 4. <input type="checkbox"/> copy of general power of attorney; reference number, if any: | 8. <input checked="" type="checkbox"/> other (specify): Gen. Trans; Check in the amount of \$748.00: Return Postcard |

## Box No. VII SIGNATURE OF APPLICANT, AGENT OR COMMON REPRESENTATIVE

Next to each signature, indicate the name of the person signing and the capacity in which the person signs (if such capacity is not obvious from reading the demand).

By:   
Tim Tingkang Xia, Reg. No. 45,242

XIA, Tim Tingkang, Reg. No. 45,242; HARRIS, John. R., Reg. No. 30,388; TODD, Jack D., Reg. No. 44,375; TILLMAN, Chad. D., Reg. No. 38,634; ANDERSON, Brian J., Reg. No. 43,470; STANO, Dana E., Reg. No. 50,750; MACDONALD, Brian D., Reg. No. P-54,288

## For International Preliminary Examining Authority use only

1. Date of actual receipt of DEMAND:	
2. Adjusted date of receipt of demand due to CORRECTIONS under Rule 60.1(b):	
3. <input type="checkbox"/> The date of receipt of the demand is AFTER the expiration of 19 months from the priority date and item 4 or 5, below, does not apply. <input type="checkbox"/> The applicant has been informed accordingly.	6. <input type="checkbox"/> The date of receipt of the demand is AFTER the expiration of the time limit under Rule 54bis.1(a) and item 7 or 8, below, does not apply.
4. <input type="checkbox"/> The date of receipt of the demand is WITHIN the time limit of 19 months from the priority date as extended by virtue of Rule 80.5.	7. <input type="checkbox"/> The date of receipt of the demand is WITHIN the time limit under Rule 54bis.1(a) as extended by virtue of Rule 80.5.
5. <input type="checkbox"/> Although the date of receipt of the demand is after the expiration of 19 months from the priority date, the delay in arrival is EXCUSED pursuant to Rule 82.	8. <input type="checkbox"/> Although the date of receipt of the demand is after the expiration of the time limit under Rule 54bis.1(a), the delay in arrival is EXCUSED pursuant to Rule 82.

## For International Bureau use only

Demand received from IPEA on:

# PCT

## CHAPTER II

### FEE CALCULATION SHEET

#### Annex to the Demand

<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%;">International application No.</td> <td style="width: 50%;">PCT/US03/26801</td> </tr> <tr> <td>Applicant's or agent's file reference</td> <td>14506-44090</td> </tr> </table>	International application No.	PCT/US03/26801	Applicant's or agent's file reference	14506-44090	<p style="text-align: center;">For International Preliminary Examining Authority use only</p> <div style="border: 1px solid black; height: 100px; width: 100%;"></div>				
International application No.	PCT/US03/26801								
Applicant's or agent's file reference	14506-44090								
Applicant <b>VANDERBILT UNIVERSITY</b>									
<b>CALCULATION OF PRESCRIBED FEES</b>  <table style="width: 100%;"> <tr> <td style="width: 80%;">1. Preliminary examination fee .....</td> <td style="width: 20%; text-align: right;">600 P</td> </tr> <tr> <td>2. Handling fee (<i>Applicants from certain States are entitled to a reduction of 75% of the handling fee. Where the applicant is (or all applicants are) so entitled, the amount to be entered at H is 25% of the handling fee.</i>) .....</td> <td style="text-align: right;">148 H</td> </tr> <tr> <td>3. Total of prescribed fees Add the amounts entered at P and H and enter total in the TOTAL box .....</td> <td style="text-align: right; border: 1px solid black;">748</td> </tr> <tr> <td></td> <td style="text-align: center; border: 1px solid black;"><b>TOTAL</b></td> </tr> </table>		1. Preliminary examination fee .....	600 P	2. Handling fee ( <i>Applicants from certain States are entitled to a reduction of 75% of the handling fee. Where the applicant is (or all applicants are) so entitled, the amount to be entered at H is 25% of the handling fee.</i> ) .....	148 H	3. Total of prescribed fees Add the amounts entered at P and H and enter total in the TOTAL box .....	748		<b>TOTAL</b>
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	<b>TOTAL</b>								
<b>MODE OF PAYMENT</b>  <table style="width: 100%;"> <tr> <td><input type="checkbox"/> authorization to charge deposit account with the IPEA (see below)</td> <td><input type="checkbox"/> cash</td> </tr> <tr> <td><input checked="" type="checkbox"/> cheque</td> <td><input type="checkbox"/> revenue stamps</td> </tr> <tr> <td><input type="checkbox"/> postal money order</td> <td><input type="checkbox"/> coupons</td> </tr> <tr> <td><input type="checkbox"/> bank draft</td> <td><input type="checkbox"/> other (specify):</td> </tr> </table>		<input type="checkbox"/> authorization to charge deposit account with the IPEA (see below)	<input type="checkbox"/> cash	<input checked="" type="checkbox"/> cheque	<input type="checkbox"/> revenue stamps	<input type="checkbox"/> postal money order	<input type="checkbox"/> coupons	<input type="checkbox"/> bank draft	<input type="checkbox"/> other (specify):
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<input type="checkbox"/> postal money order	<input type="checkbox"/> coupons								
<input type="checkbox"/> bank draft	<input type="checkbox"/> other (specify):								
<b>AUTHORIZATION TO CHARGE (OR CREDIT) DEPOSIT ACCOUNT</b> <i>(This mode of payment may not be available at all IPEAs)</i>  <table style="width: 100%;"> <tr> <td style="width: 50%; vertical-align: top;"> <input type="checkbox"/> Authorization to charge the total fees indicated above.   <input type="checkbox"/> <i>(This check-box may be marked only if the conditions for deposit accounts of the IPEA so permit)</i> Authorization to charge any deficiency or credit any overpayment in the total fees indicated above.             </td> <td style="width: 50%; vertical-align: top;">                 IPEA/ _____                  Deposit Account No.: _____                  Date: _____                  Name: _____                  Signature: _____             </td> </tr> </table>		<input type="checkbox"/> Authorization to charge the total fees indicated above.  <input type="checkbox"/> <i>(This check-box may be marked only if the conditions for deposit accounts of the IPEA so permit)</i> Authorization to charge any deficiency or credit any overpayment in the total fees indicated above.	IPEA/ _____ Deposit Account No.: _____ Date: _____ Name: _____ Signature: _____						
<input type="checkbox"/> Authorization to charge the total fees indicated above.  <input type="checkbox"/> <i>(This check-box may be marked only if the conditions for deposit accounts of the IPEA so permit)</i> Authorization to charge any deficiency or credit any overpayment in the total fees indicated above.	IPEA/ _____ Deposit Account No.: _____ Date: _____ Name: _____ Signature: _____								